

LADYZHENSKIY, Nikolay Romanovich, prof.; ANTIPOV, Viktor Ivanovich; POR-
FIR'YEV, V.B., akademik, red.; YUNGANS, S.M., vedushchiy red.;
VORONOVA, V.V., tekhn. red.

[Geology, and gas and oil potentials of the Soviet cis-
Carpathian region] Geologicheskoe stroenie i gazonaftenosnost'
Sovetskogo Predkarpat'ia. Moskva, Gos. nauchno-tekhn. izd-vo
neft. i gorno-toplivnoi lit-ry, 1961. 265 p. (MIRA 14:10)

1. Akademiya nauk USSR (for Porfir'yev)
(Carpathian Mountain region—Petroleum geology)
(Carpathian Mountain region—Gas, Natural—Geology)

PORFIR'YEV, V.B.

Origin of oil. Geol.stor. [Lvov] no.7/8:13-38 '61. (MIRA 14:12)

1. Institut geologii poleznykh iskopayemykh AN USSR, L'vov.
(Petroleum geology)

PORFIR'YEV, V.B. [Porfir'iev, V.B.], akademik

Natural resources for the people. Nauka i zhittia 11 no.10:24
0 '61. (MIRA 15:1)

1. AN USSR; direktor Instituta geologii poleznykh iskopayemykh
AN USSR.

(Ukraine--Natural resources)

TIMOFEYEV, P.P.; BOGOLYUBOVA, L.I.; KOSOVSKAYA, A.G.; PORFIR'YEV, V.B.

International conference and the 4th International Congress on
the Coal Petrology. Izv.AN SSSR.Ser.geol. 27 no.3:132-135 ~~Mr~~
'61. (MIRA 15:2)

(Coal--Congresses)

VENGLINSKIY, Ivan Vladimirovich[Venhlins'kyi, I.V.]; PORFIR'YEV, V.B.,
akademik, otv. red.; CHEKHOVICH, N.Ya., red.[Chekhovych, N.IA.],
red.; MATVIICHUK, O.O., tekhn. red.

[Miocene biostratigraphy of Transcarpathia based on the Foraminifera
fauna] Biostratigrafiia miotsemu Zakarpattia za faunoiu foraminifer.
Kyiv, Vyd-vo Akad. nauk URSR, 1962. 119 p. tables. (MIRA 15:7)

1. Akademiya nauk USSR (for Porfir'yev).
(Transcarpathia--Foraminifera, Fossil)

SEMENENKO, N.P., akademik, otv. red.; TKACHUK, L.G., doktor geol.-
miner. nauk, zam. otv. red.; VYALOV, O.S., red.; PORFIR'YEV
V.B., red.; SUBBOTIN, S.I., red.; LAZARENKO, Ya.K., red.;
BELEVTSSEV, Ya.N., red.; POPOV, V.S., red.; SOLLOGUB, V.B.,
doktor geol.-miner. nauk, red.; CHEKHOVICH, N.Ya., red.;
BYCHKOVA, R.I., red.

[Materials of the Sixth Congress of the Carpatho-Balkan
Geological Association; reports of the Soviet geologists]
Materialy VI s"ezda Karpato-Balkanskoi geologicheskoi as-
sotsiatsii; doklady sovetskikh geologov. Kiev, Naukova
dumka, 1965. 461 p. (MIRA 18:10)

1. Karpato-Balkanskaya geologicheskaya assotsiatsiya. 6.s"yezd.
2. AN Ukr.SSR (for Semenenko). 3. Chlen-korrespondent AN Ukr.SSR
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PORFIR'YEV, V.B. [Porfir'iev, V.B.]

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no.4:9-22 '64. (MIRA 18:2)

1. Institut geologicheskikh nauk AN UkrSSR.

SHTOGRIN, Ol'ga Dmitriyevna [Shtohryn, O.D.]; GAVRILENKO, K.S.
[Havrylenko, K.S.], retsenzent; ROMANYUK, A.F., retsenzent;
PORFIR'YEV, V.B., akademik, nauchnyy red.; SERDYUK, O.P.,
red.; LISOVETS', O.M. [Lysovets', O.M.], tekhn. red.

[Underground waters of Quaternary sediments in the cis-
Carpathian region] Pidzemni vody chetvertynnykh vidkladiv
Peredkarpattia. Kyiv, Vyd-vo AN URSR, 1963. 137 p.
(MIRA 16:12)

1. Akademiya nauk Ukr.SSR (for Porfir'yev).
(Carpathian Mountain region--Water, Underground)

KITYK, Vasiliy Ivanovich; PORFIR'YEV, V.B., akademik, otv. red.;
MEL'NIK, A.F., red.; LISOVETS, A.M., tekhn. red.

[Conditions governing the formation of salt dome structures]
Usloviia obrazovaniia solianykh struktur. Kiev, Izd-vo AN
USSR, 1963. 291 p. (MIRA 16:12)

1. Akademiya nauk Ukr.SSR (for Porfir'yov).
(Salt domes)

PORFIR'YEV, V.B. [Porfir'iev, V.B.], akademik; GRINBERG, Y.V.
[Grinberh, I.V.]; LADYZHENSKIY, M.R. [Ladyzhens'kyi, M.R.];
LINETSKIY, V.P. [Linets'kyi, V.P.]; GALABUTSKAYA, K.A.
[Halabuts'ka, K.A.]; TKACHUK, L.G. [Tkachuk, L.H.];
SVARICHEVSKIY, L.V. [Svarychevs'kyi, L.V.]; RIPUN, M.B.
[Rypun, M.B.]; GABINET, M.P. [Habinet, M.P.]; CHEKHOVICH,
N.Ya. [Chekhovych, N.IA.], red.; MATVIICHUK, O.O., tekhn.
red.

[Carpathian menillite shales] Menilitovi slantsi Karpat. Kyiv,
Vyd-vo Akad. nauk URSR, 1963. 204 p. (MIRA 16:6)

1. Akademiya nauk Ukr. SSR (for Porfir'yev). Institut geologii
goryuchikh iskopayemykh AN Ukr.SSR (for all except Chekhovich,
Matviichuk).

(Carpathian Mountains—Oil shales)

ALEKSANDROV, Grigoriy Petrovich[Aleksandrov, H.P.]; DUDNIK, Vera Nikolayevna[Dudnyk, V.M.]; KITYK, Vasiliy Ivanovich; SURZHOK, Grigoriy Dmitriyevich [Surzhok, H.D.]. Prinimal uchastiye SHEVCHENKO, Yu.V.; PORFIR'YEV, V.B., akademik, otv. red.; MEL'NIK, G.F.[Mel'nyk, H.F.], red. izd-va; DAKHNO, Yu.B., tekhn. red.

[Kalussite, a new potassium fertilizer]Kalushyt - nove kaliine dobrovo. [By]G.P.Aleksandrov ta inshi. Kyiv, Vyd-vo Akad.nauk URSR, 1962. 133 p. (MIRA 16:3)

1. Akademiya nauk Ukr. SSR (for Porfir'yev)
(Ukraine--Kalussite)

PORFIR'YEV, V.B.; GRINBERG, I.V.

Methodology of studying mother rocks. Trudy Inst. geol. pol.
iskop. AN URSS 5:3-25 '62. (MIRA 16:1)
(Oil sands--Analysis)

BONDARCHUK, V.G., akademik, otv.red.; PORFIR'YEV, V.G., akademik, red.; KOZIN, Ya.D., doktor geol.-miner.nauk, red.; KAPTARENKO-CHERNOUSOVA, O.K., doktor geol.-miner.nauk, red.; SHUL'GA, P.L., doktor geol.-miner.nauk; KLIMENKO, V.Ya., kand.geol.-miner.nauk, red.; MOLIYAVKO, G.I., kand.geol.-miner.nauk, red.; KLITOCHENKO, I.F., red.; MUROMTSEV, A.S., red.; MUKHIN, A.V., red.; CHERPAK, S.Ye., red.; MANVELOVA, K.K., mladshiy nauchnyy sotrudnik, red.; MEL'NIK, A.F., red.izd-va; MILEKHIN, I.D., tekhn.red.

[Geology, and oil and gas potentials of eastern regions in the Ukraine; proceedings of the conference on oil and gas potentials of the Ukraine] Geologicheskoe stroenie i neftegazonosnost' vostochnykh oblastei Ukrainy; trudy nauchno-proizvodstvennogo soveshchaniia po probleme neftegazonosnosti Ukrainy, 27 fevralia - 3 marta 1956 g. Kiev, 1959. 436 p. (MIRA 13:3)

1. Akademiia nauk URSR, Kiev, Instytut geologichnykh nauk.
 2. AN USSR (for Bondarchuk, Porfir'yev).
 3. Glavnyy geolog ob'yedineniya "Ukrneft'" (for Klitochenko).
 4. Direktor Ukrainskogo otdeleniya Vsesoyuznogo nauchno-issledovatel'skogo geologo-razvedochnogo neftyanogo instituta (VNIGNI) (for Muromtsev).
 5. Glavnyy inzhener tresta "Ukrneftegeofizika" (for Mukhin).
 6. Glavnyy geolog tresta "Ukrkvostoknefterazvedka" (for Cherpak).
 7. Institut geologicheskikh nauk AN USSR (for Manvelova).
- (Ukraine--Petroleum geology) (Ukraine--Gas, Natural--Geology)

PORFIR'YEV, V.I.

Our plant is acquiring experience in ship repairs. Rech.transp.
18 no.12:24-25 D '59. (MIRA 13:4)

1. Nachal'nik tekhotdela Gorodetskogo sudoremontno-mekhanicheskogo
zavoda Volzhskogo ob'yedinennogo rechnogo parokhodstva.
(Gorodets(Gorkiy Province)--Ships--Maintenance and repair)

LASTOCHKIN, V.P.; PORFIR'YEV, V.A.; STANKEVICH, K.S.; TROITSKIY, V.S.;
KHOLODILOV, N.N.; TSEYTLIN, N.M.

Precise measurements of radio emission intensity from the discrete
sources Cassiopeia-A, Cygnus-A, and Taurus-A in the decimeter wave
band. Izv. vys. ucheb.zav.; radiofiz. 6 no.3:629-630 '63.

(MIRA 16:9)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovo-
kom universitete.

PORFIR'YEV, V.S.

Classification of mixed forests in the cis-Ural region. Trudy Inst.
biol. UF AN SSSR no.27:71-79 '61. (MIRA 17:2)

PORFIR'YEV, V.S.

Changes in the forest types of the Volga-Kama Valley under conditions
created by the Greater Volga project. Uch.zap.Kaz.un. 113 no.1:77-85
'53. (MIRA 10:3)

(Tatar A.S.S.R.--Forests and forestry)

PORFIR'YEV, V.S.

Tentative classification of the conifer-hardwood forests of
the Volga-Kama area. Bot. zhur. 49 no.2:210-222 F '64.

(MIRA 17:6)

1. Kazanskiy pedagogicheskiy institut.

PORFIR'YEV, V.S.

Preserve sections of taiga forests in the Volga-Kama region.
Okhr.prir.i zapov.delo v SSSR no.7834-44 '62. (MIRA 16:4)
(Volga Valley--Forest protection)
(Kama Valley--Forest protection)

PORFIR'YEV, V.S.

Applying the concepts of series and cycle to the study of
mixed coniferous-deciduous woods. Biol.MOIP. Otd.biol. 65:
93-102 My-Je '60. (MIRA 13:7)
(TATAR A.S.S.R.--FOREST ECOLOGY)

PORFIR'YEV, V.S.; KUDANOVA, Z.M.

To the memory of Agniia Dmitrievna Pletneva -Sokolova;
1899-1963. Bot. zhur. 49 no.7:1073-1075 JI '64
(MIRA 17:8)

1. Kazanskiy pedagogicheskiy institut i Chuvashskiy sel'sko-
khozyaystvennyy institut.

PORFIR'YEV, V. V.

PORFIR'YEV, V. V. — "The Internal Structure of a Rotating Star." Min
Higher Education USSR. Kiev State U imeni T. G. Shevchenko. Kiev, 1955.
(Dissertation for the Degree of Candidate in Physicomathematical Sciences)

SOURCE Knizhnaya Letopis', No 6 1956

PORFIR'YEV, V.V.

Internal structure of a rotating star. Astron.zhur. 33 no.5:
690-697 S-O '56. (MLRA 9:12)

1. Astronomicheskaya observatoriya L'vovskogo gosudarstvennogo
universiteta. (Stars--Constitution)

PORFIR'YEV, V.V.

Field of radiation pressure in planetary nebulae expanding with
the gradient of velocities. Dep. to gov. L'viv. un. no. 7 pt. 3:
251-253 157. (Nebulae) (MIRA 11:2)

PORFIR'YEV, V.V.

Radiation equilibrium in planetary nebulae. Dop. ta pov. L'viv.
un. no.7 pt.3:253-256 '57. (MIRA 11:2)
(Nebulae)

PORFIR'YEV, V. V.

"The Structure of Rotating Stars."

report to be submitted for the 9th Intl. Symposium, Belgian Inst. of
Astrophysics, Liege, Belgium, 6-8 July 1959.

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3(1), 10(2), 10(6)

AUTHOR: Porfir'yev, V.Y.

SOV/33-36-3-23/29

TITLE: On the Law of Rotation of a Polytropic Gas Sphere

PERIODICAL: Astronomicheskiy zhurnal, 1959, Vol 36, Nr 3, pp 546-548 (USSR)

ABSTRACT: The author considers a rotating polytropic gas sphere. It is shown that if circulation flows are missing and if the inner friction is negligibly small, then an equilibrium is possible only if the rotation is rigid. The author mentions a paper of V.A.Krat [Ref 1].

There are 2 references, 1 of which is Soviet, and 1 English.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet (L'vov State University)

SUBMITTED: August 2, 1958

Card 1/1

FORFIR'YEV, V.V.; ROSTOVSKAYA, V.I.

Investigation of radial velocity curves of eclipsing binaries.
Astron. zhur. 41 no.5:858-867 5-60 162.

(MIRA 17410)

PORFIR'YEV, V.V.

Pulsation of rotating stars. Astron. zhur. 40 no.3:579-581
My-Je '63. (MIRA 16:6)

1. Astronomicheskaya observatoriya L'vovskogo gosudarstvennogo
universiteta.

(Stars, Variable)

OLIYNIK, G.T.; PORFIR'YEV, V.V.

Nature of variable stars of the type β Can. Maj. Astron. zhur.
40 no.4:774-776 J1-Ag '63. (MIRA 16:3)

1. Astronomicheskaya observatoriya L'vovskogo universiteta.
(Stars, Variable)

PORFIR'YEV, V.V.

Instability of the rotation of stars. Astron.zhur. 39
no.6:1038-1040. N-D '62. (MIRA 15:11)

1. L'vovskaya astronomicheskaya observatoriya.
(Stars)

SHVEY, M.M., inzh.; PORFIR'YEV, V.V., inzh.

Use of walking electric jacks for the erection of cement silos. Prom.
stroitel'stva 40 no.2:20-25 '62. (MIRA 15:7)

1. Gosudarstvennyy soyuznyy proyektnyy institut No.6 Ministerstva
stroitel'stva SSSR.
(Lifting jacks) (Reinforced concrete construction)
(Cement—Storage)

PORFIR'YEV, V.V.

Stationary law of stellar rotation. Astron.zhur. 39 no.4:710-
714 J1-Ag '62. (MIRA 15:7)

1. Astronomicheskaya observatoriya L'vovskogo gosudarstvennogo
universiteta.

(Stars)

PORFIR'YEV, V.V.

Internal structure of rotating stars. TSir. Astron. obser. L'viv.
un. 35/36:1-12 '60. (MIRA 14:4)

(Stars—Constitution)

PORFIR'YEV, V.V.

Convective model of a rotating star. TSir. Astron. obser. L'viv.
un. 35/36:13-24 '60. (MIRA 14:4)
(Astronomical models)

PORFIR'YEV, V.V.

Circulation currents in rotating stars. TSir. Astron. obser. L'viv.
un. 35/36:25-30 '60. (MIRA 14:4)
(Stars) (Astronomical models)

KRASNOZHENOV, Ye.P.; PORFIR'YEV, V.V.

Absorption line profiles in the spectra of novae. Astron. Zhur.
37 no.3:589-590 My-Je '60. (MIRA 13:6)

1. L'vovskiy gosudarstvennyy universitet imeni Ivana Franko.
(Stars, New--Spectra)

PORFIR'YEV, Ye.I.

[Peter I, creator of the military art of the regular Russian army and navy] Petr I - osnovopolozhnik voennogo iskusstva russkoi reguliarnoi armii i flota. Moskva, Voen. izd-vo, 1952. 287 p. (MLRA 7:4)

(Peter I, The Great, 1672-1725) (Russia--History, Military)

PORFIR'YEV, Yu.K.

Hypersonic gas flow about a conic body. Trudy KAI no.64:77-88
'61. (MIRA 17:2)

ACCESSION NR: AT4035428

S/2529/61/000/064/0077/0088

AUTHOR: Porfir'yev, Yu. Ka.

TITLE: The problem of conical bodies with a supersonic gas flow

SOURCE: Kazan. Aviatsonnyy institut. Trudy*, no. 64, 1961. Matematika i mekhanika (Mathematics and mechanics), 77-88

TOPIC TAGS: aerodynamics, supersonic flow, supersonic gas flow, conical body, shock wave, plane section law, piston

ABSTRACT: The author briefly reviews the history of the study of the supersonic flow of a gas around conical bodies, with particular attention to the gradual linearization of the theory. Various methods which have been proposed for the solution of related problems are mentioned and bibliographical references to the principal works in question are given. In the present article, the author considers the movement of a thin conical body with a sharp nose in an ideal gas with a high supersonic velocity. The body is assumed to be moving at a velocity $u_0 \gg c_0$ (c_0 is the speed of sound in an undisturbed gas). Emanating

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from the nose of the body is a shock wave, representing a certain conical surface. With the passage of the shock wave, the gas particles spasmodically change in velocity, pressure, density and entropy. According to the law of plane sections, the spatial stationary problem of the flow around a thin body of great supersonic velocity, with accuracy to values in the order of $\tau^2 + c_0^2/u_0^2$, is reduced to the plane non-stationary problem of the expansion of a piston (where τ is the angle formed by the generatrix of the cone and the axis x). If, when $t = 0$, the nose of the body was lying in the plane x_0 , then at the moment of time t in plane x_0 we have a section of the body located at distance $u \cdot t$ from the nose. In the motionless plane x_0 there will be a flow from the displacement of the gas by the opening piston. The problem of the flow around a thin conical body, as formulated in this article, is reduced to the integration of a system of four nonlinear partial equations

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$$\begin{aligned} & \left[V R \frac{\partial V}{\partial z} - W R \frac{\partial V}{\partial t} \right] + \left[\frac{\partial P}{\partial z} - V R (1 - V) - 2P + W R \right] ; \\ & \left[V R \frac{\partial W}{\partial z} - W R \frac{\partial W}{\partial t} - \frac{\partial P}{\partial t} \right] = W R (1 - 2V); \\ & \left[V \frac{\partial P}{\partial z} - W \frac{\partial R}{\partial t} + V R \frac{\partial V}{\partial z} - R \frac{\partial W}{\partial t} \right] = 2R (1 - V); \\ & \left[V \kappa P \frac{\partial R}{\partial t} - V R \frac{\partial P}{\partial t} + W R \frac{\partial P}{\partial t} - \kappa P W \frac{\partial R}{\partial t} \right] = 2P V R. \end{aligned} \quad (1)$$

with conditions

$$\frac{D}{c_0} = \frac{D_0}{c_0} \cdot \frac{z_0}{\sqrt{c_0^2 + z_0^2}} \quad (2)$$

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ACCESSION NR: AT4035428

$$\begin{aligned} V_0 &= 1 - \frac{2}{k+1} \left(\frac{D^2}{c_0^2} - 1 \right) \frac{1}{\xi_0^2}; \\ W_0 &= - \frac{2}{k+1} \left(\frac{D^2}{c_0^2} - 1 \right) \frac{\xi_0'}{\xi_0^3}; \\ P_0 &= \frac{2}{k+1} \left(\frac{D^2}{c_0^2} - \frac{k-1}{2k} \right) \frac{1}{\xi_0^2}; \\ R_0 &= \frac{k+1}{k-1} \frac{D^2}{c_0^2} \frac{1}{\left(\frac{D^2}{c_0^2} + \frac{2}{k-1} \right)^2}. \end{aligned} \quad (3)$$

at the front of the shock wave, and the condition of the impenetrability of the body

$$\frac{dr}{d\theta} = - \frac{V(t, \theta)}{W(t, \theta)}. \quad (4)$$

By substituting D/c_0 from the above relationship, the boundary conditions (Eq. 1, 3) will be functions only of ξ_0 , ξ_0' and will determine the unknown functions V, W, P, R at the shock

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NO REF SOV: 006

OTHER: 000

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Card 5/5

PORFIR'YEVA, A-A.

Variations in the blood calcium in skeletal disorders.
N. V. Savjalova and A. A. Porfir'eva. Kазan. Med.
Zhur. 31, 444-7(1935); *Russ. Zool.*—1937, 1, 116.—
From 2 to 3 days after orthopedic operations a reduction of
the Ca content of the blood stream below the normal is
observed. Beginning with the 4th day a slow increase in
the Ca content occurs and the normal value is again reached
about the 9th day. In bone fractures a reduction in
the Ca content of the blood serum the first 2-3 days was
likewise established, the normal level being reached after
5 days.

M. G. Moore

41290

S/035/62/000/010/046/128
A001/A101

9.4.77
12.11.12
AUTHORS: Makarova, Ye. A., Kozhevnikov, N. I., Porfir'yeva, G. A.

TITLE: Determination of extra-atmospheric values of silicon photo-cell yield. Part II. Observations and results

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 58-59, abstract 10A403 ("Soobshch. Gos. astron. in-ta im. P. K. Shternberga 1961, no. 116, 25 - 45)

TEXT: The method described in Part I of the article of the same title (abstract 10A402) was applied to determination of the absolute spectral sensitivity of a group of photo-cells. Making use of the experimental linear growth of power obtained from the optimum load of a photo-cell (depending on light intensity), the authors calculated extra-atmospheric values of photo-cell yield by extrapolation of observed values. It amounts to 4.5 - 9.7 mw cm². There are 9 references. ✓

Ye. A.

[Abstracter's note: Complete translation]
Card 1/1

MAKAROVA, Ye.A.; KOZHEVNIKOV, N.I.; PORFIR'YEVA, G.A.

Determining out-of-atmosphere values of the rate of efficiency
of silicon photoelectric cells. Part 2. Observations and
results. Soob.GAISH no.116:25-45 '61. (MIRA 14:8)
(Photoelectric cells--Testing) (Solar energy)

89707

S/139/61/000/001/015/018
EO32/E514

#6.2311

AUTHORS: Glauberman, A. Ye. and Porfir'yeva, L. A.

TITLE: On "Plasma" Expansions

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1961, No.1, pp.147-149

TEXT: In a previous paper (Ref.1) the present authors discussed a general scheme for the determination of higher approximations in expansions in terms of the plasma parameter for functions describing the distribution of particle complexes in a system of interacting ions, which is neutral as a whole. The mutual potential $\Phi_{\alpha\beta}$ was assumed to be finite at the origin, e.g.

$$\Phi_{\alpha\beta} = \frac{e_{\alpha}e_{\beta}}{r} \left(1 - A_{\alpha\beta}(r) e^{-a_{\alpha\beta}r} \right) \quad (1) \quad \checkmark$$

The present paper extends the discussion given in Ref.1 to the general case of a neutral non-symmetric system. In this general case the equation for $h_{\alpha\beta}^1$ is

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On "Plasma" Expansions

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E032/E514

$$\frac{\partial}{\partial q_a^*} h_{aa}^1 + \sum_c n_c \int \frac{\partial \Psi_{ac}}{\partial q_a^*} \left\{ h_{ac}^1 + h_{aac}^0 + \frac{g_{ac}^{0^2}}{2} + g_{ac}^0 g_{ac}^0 \right\} dq_c = 0. \quad (3)$$

and, correspondingly

$$\frac{\partial}{\partial q_a^*} h_{aac}^0 + \sum_d n_d \int \frac{\partial \Psi_{ad}}{\partial q_a^*} \left\{ h_{acd}^0 + g_{ad}^0 g_{cd}^0 \right\} dq_d = 0, \quad (4)$$

$$h_{aac}^0 = \sum_d n_d \int g_{ad}^0 g_{cd}^0 g_{cd}^0 dq_d \quad (5)$$

so that

$$h_{aa}^1 = \sum_c n_c \int \left\{ g_{ac}^0 \frac{g_{ac}^{0^2}}{2} + \frac{g_{ac}^{0^2}}{2} g_{ac}^0 \right\} dq_c + \sum_{c,d} n_c n_d \int \int g_{nd}^0 g_{ac}^0 \frac{g_{cd}^{0^2}}{2} dq_c dq_d. \quad (6)$$

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On "Plasma" Expansions

S/139/61/000/001/015/018
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Finally, the binary distribution function in the general case is given by

$$F_{aa} = \exp \left\{ v g_{aa}^0 \right\} \left\{ 1 + v^2 h_{aa}^1 + v^3 h_{aa}^2 + \dots \right\}. \quad (7)$$

where h_{aa}^1 is defined by Eq.(6). In the case of a system consisting of particles of the same sign and located in the compensating field of the space charge consisting of particles of the opposite sign, which are uniformly distributed in space and whose potential is given by

$$\varphi = \int \frac{\rho dq_{s+1}}{|q_1 - q_{s+1}|}, \quad \rho = \text{const}, \quad (8)$$

the following results are obtained. The equations for the functions $C_{1\dots s}$, which are defined by

$$F_{1\dots s} = \exp \left\{ -\bar{U}_{1\dots s}/\theta \right\} C_{1\dots s} \quad (9)$$

Card 3/4

GLAUBERMAN, A.Ye.; PORFIR'YEVA, L.A.

"Plasma" expansions. Izv.vys.ucheb.zav.; fiz. no.1:147-149 '61.
(MIRA 14:7)

1. L'vovskiy gosudarstvennyy universitet imeni Ivana Franko.
(Plasma (Ionized gases)) (Series)

GLAUBERMAN, A.Ye.; PORFIR'YEVA, L.A.

Higher approximations in a new form of "plasma" expansions.
Izv.vys.ucheb.zav.; fiz. no.6:76-84 '59. (MIRA 13:6)

1. L'vovskiy gosuniversitet imeni I.Franko.
(Dynamics of a particle) (Statistical mechanics)
(Plasma (Ionized gases))

24.2120

69195

S/139/59/000/06/011/034
E032/E114

AUTHORS: Glauber, A.Ye., and Porfir'yeva, L.A.

TITLE: On Higher Approximations in a New Form of "Plasma"
Expansions ²¹

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1959, Nr 6, pp 76-84 (USSR)

ABSTRACT: Tyablikov and Tolmachev (Refs 7 and 8) have put forward a method for solving Bogolyubov's equations for a system of charged particles, using expansions in powers of the "plasma" parameter v/r_d where v is the volume per particle and r_d is the Debye radius. In this way they obtained the first approximation for the binary distribution function. The present paper is concerned with the derivation of higher approximations for the distribution functions of particle complexes and, in particular, for the binary function. The calculation is carried out for a multicomponent system of interacting charged particles, the system being neutral as a whole. There are 8 Soviet references.

Card
1/1

ASSOCIATION: L'vovskiy gosuniversitet imeni I. Franko
(L'vov State University imeni I. Franko)

SUBMITTED: February 18, 1959

PORFIR'YEVA, N.A.

Zoogeography of planarians in the U.S.S.R. Zool. zhurn. 40 no.3:454-457
Mr '61. (MIRA 14:3)

1. Department of Invertebrate Zoology, State University of Kazan.
(Turbellaria)

LIVANOV, N.A.; PORFIR'YEVA, N.A.

"Annelid hypothesis" on the origin of Pogonophora. Zool. zhur.
44 no.2:161-168 '65. (MIRA 18:5)

1. Kazanskiy gosudarstvennyy universitet.

PORFIR'YEVA, N. N.

USSR/Physics
Crystals Lattices

May 49

"Orientation-Translation Waves in Molecular Crystals: 1, Dynamics of a Linear Lattice," A. I. Ansel'm, N. N. Porfir'yeva, Leningrad Physicotech Inst, Acad Sci USSR, 9 pp

"Zhur Eksper i Teoret Fiz" Vol XIX, No 5

Studied oscillations of a linear crystallic lattice, each particle of which possessed progressing and rotating degrees of freedom. Spectrum of orientation-translation oscillations has as many branches as the elementary lattice of the molecular crystal has degrees of freedom (translation and rotation). In a linear lattice only one branch begins (at λ equal to infinity) with a frequency ω equal to zero (acoustic branch). Submitted 13 Dec 48.

PA 46/49T97

PORFIR'YEVA, N. N.

PA 61/49T99

USSR/Physics
Crystals
Lattices

Aug 49

"Orientation-Translation Waves in Molecular Crystals (Dynamics of Two- and Three-Dimensional Lattices)," N. N. Porfir'yeva, Leningrad Physicotech Inst, Acad Sci USSR, 10 pp

"Zhur Eksp 1 Teoret Fiz" Vol XIX, No 8

Studied propagation of oscillations in two- and three-dimensional molecular crystal lattices. Showed conditions under which translation and orientation oscillations exist independently.

61/49T99

USSR/Physics (Contd)

Aug 49

Found limiting frequencies of oscillations, and investigated the nature of molecule movement in the elementary honeycomb at these frequencies. Submitted 21 Mar 49.

61/49T99

PA 156T100

PORFIR'YEVA, N. N.

USSR/Physics - Molecular Structures
Crystals - Lattices

Feb 50

"Orientation-Translation Waves in Molecular
Crystals. III. Natural Frequencies and the
Selection Rules for Molecular Crystals," N. N.
Porfir'yeva, Leningrad Physicotech Inst, Acad
Sci USSR, 11 pp

"Zhur Eksper i Teoret Fiz" Vol XX, No 2

Uses methods of group theory to investigate
concrete examples of two-dimensional and
three-dimensional lattices of molecular crys-
tals to find natural frequencies of orientational

156T100

USSR/Physics - Molecular Structures
(Contd)

Feb 50

and translational oscillations and to determine
(a) selection rules for infrared spectrum, and
(b) spectrum of combination scattering. Sub-
mitted 26 Jul 49.

156T100

USSR/Physics - Spectrography, Crystals May 52

"Computation of Natural-Limit Frequencies in the Spectrum Molecular Crystals of Paradibromobenzene, Parabromochlorobenzene and Paradichlorobenzene," N. N. Porfir'yeva, Leningrad Shipbldg Inst

"Zhur Eksper i Teoret Fiz" Vol XXII, No. 5, pp 590-599

Presents analytical aspect of natural-limit frequencies of 3 isomorphous crystals, belonging to the spatial group C_{2h}^{12} . Finds rules of sepn of the combination-scattering [Raman] spectrum. Makes

215792

evaluations of coeffs of elastic bonds based on comparison with spectra of isomorphous crystals. Analyzes the breadth of optical branches belonging to orientational oscillations. Indebted to Prof Ye. F. Gross and A. V. Korshunov. Received 14 Sep 51.

PORFIR'YEVA, N.N.

215792

PORFIR'YEVA, N.N.

62
 /Computation of natural cut-off frequency spectra of mixed crystal molecules at various concentrations of components. N. N. Porfir'eva (Leningrad Shipbldg. Inst.), *Zhur. Ekspil. i Teoret. Fis.* 27, 430-44 (1954).—Elementary nuclei of mixed crystals of dibromo- and dichlorobenzene contain 2 mols. of different type and therefore are characterized by 12 coordinates. Elements of symmetry of this crystal are identical transformation E and center of inversion C_i . By application of theory of groups natural cut-off frequency spectra were computed at component concn. of 50:50 and 25:75. Computed frequencies for 50:50 mixt. agreed well with exptl. data of Korshunov and Sel'kin. Further it is shown that character of spectrum does not change with change in concn. of components. This is stipulated by isomorphy of crystals and preservation at practically any concn. of their singular element of symmetry, the center of inversion.
 V. N. Bednarski

~~PORFIR'YEVA, N. N.~~
~~PORFIR'YEV, N. N.~~

The purity of the characteristic spectra of x-ray structural tubes. N. N. Porfir'eva and B. A. Finagin (Ship-Building Inst., Leningrad). *Zavodskaya Lab.* 22, 829-31 (1956). — An exptl. study of the spectra of a no. of x-ray tubes showed that they contained lines of several impurities and that the intensity of the radiation from the impurity was as high as 10% of the intensity of the main radiation. J. R. L.

PORFIR' YEVA, N. N.

AUTHOR
TITLE

PORFIR' YEVA, N. N.

56-7-7/66

Relation Between Intermolecular and Intramolecular
Vibrations in crystals.

(Svyaz'mezhmolekulyarnykh i vnutrimolekulyarnykh
kolebaniy v kristalle.- Russian)

PERIODICAL

Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 33,
Nr 7, pp 47-52 (USSR)

ABSTRACT

The present paper also investigates the conditions
for the separation of these vibrations. Here the
classical problem is solved by the application of
the group theory. The author here investigates a
threedimensional crystal which contains N molecules
with S atoms each. At first the potential energy
of the interaction of the atoms in this crystal is
written down. Next, the displacements of the mole-
cules as a whole are separated; the necessary
computations are outlined. The total energy of the
crystal thus obtained is given in new coordinates.
Next, a LAGRANGIAN is set up and its solution is
sought in form of plane waves. Along the dispersion
curve the variables are not divided and therefore
all types of vibrations are coupled with one another.

CARD 1/3

Relation Between Intermolecular and Intramolecular
Vibrations in crystals.

56-7-7/66

A condition is given for the motion of the absolutely
rigid molecules. The motion of the atoms within the
held back molecules (which are obtained by elimina-
tion of the motion of the molecules as a whole) is
described by a certain part determinant of a larger
determinant. The intramolecular frequencies in the
crystal are shifted by about the amount of the order
of magnitude of the eigenfrequencies of the crystal.
Each frequency of an isolated molecule is fissioned
and is the beginning of $\sqrt{V}$ dispersion branches. A
determinant is obtained for the intermolecular as
well as for the intramolecular vibrations, the
solution of which is, in general, impossible. The
existence of terms of various degrees of smallness
indicate in principle a possibility for the
approximative solution of this determinant.
The symmetries existing in the crystal make it pos-
sible to use the group theory for the transformation
of the determinant into the quasidiagonal form. Thus,
the author here investigates a twodimensional quadra-
tical lattice with two bi-atomic molecules in the
elementary cell. The computations discussed here
fully confirm the conclusions obtained on the occasion
of the analysis of the general case.

CARD 2/3

PORFIR'YEVA, N.N.

Electric conductivity and Hall effect in a polar semiconductor taking into account the scattering of current carriers on optical and acoustic vibrations of a lattice and on ionic impurities. Fiz. tver. tela 1 no.6:873-877 Je '59. (MIRA 12:10)

1. Leningradskiy korablestroitel'nyy institut.
(Semiconductors--Electric properties) (Hall effect)

PORFIR'YEVA, N.N.; FINAGIN, B.A.

Analysis of the error in measuring the relative intensity of
X-ray spectrum lines by a photographic method. Trudy LKI
no.31:151-160 '60. (MIRA 15:2)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.
(X rays)

PORFIR'YEVA, N.N.; FINAGIN, B.A.

Maximum permissible extent of distortion of the characteristic spectrum of X-ray structure tubes in the structural analysis of polycrystals. Trudy LKI no.31:173-177 '60 (MIRA 15:2)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.
(X-ray crystallography)

NESTERUK, V.F.; PORFIR'YEVA, N.N.; FINAGIN, B.A.

Principles for designing devices for generating electric signals with random shape, based on the use of radioactive decay as master process. Izv.vys.ucheb.zav.; prib. 4 no.3:135-140 '61.

(MIRA 14:6)

(Signals and signaling)

S/044/62/000/007/047/100
C111/C333

16.6200

AUTHORS:

Nesteruk, V. F., Porfir'yeva, N. N.

TITLE:

A problem of the statistical estimation of parameters

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 7, 1962, 14-15,
abstract 7V63. ("Tr. Leningr. korablestroit. in-ta",
1961, no. 33, 105-113)

TEXT:

Let $s_1, \dots, s_n$ be a sample according to which the two hypotheses H_0 and H_1 are to be tested. According to hypothesis H_0 , the values $\{s_i\}$ are the realisation of a Gaussian stationary process $n(t)$ with a known correlation function and the mean value zero. According to H_1 , the values $\{s_i\}$ are the realisation of the process $n(t) + x\varphi(t) + y \cdot \psi(t)$, where φ, ψ are known functions and x, y are independent (from $n(t)$ also independent) normal $(0, 1)$ quantities. The realisations take place at certain discrete times $\{t_i\}$. The probability ratio and its distribution function, which turns out to be a tabulated function, are determined. The probability ratio as well as its distribution function are determined. The probability ratio as well as its distribution function are determined. The probability ratio as well as its distribution function are determined.

Card 1/2

NESTERUK, V.F.; PORFIR'YEVA, N.N.

Selecting optimum conditions in the statistical evaluation of
parameters. Trudy LKI no.35:139-143 '62. (MIRA 16:7)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.
(Mathematical statistics)

EWI(1)/BDS--AFFTC/ASD
L 100h3-63
ACCESSION NR: AR3000391

S/0058/63/000/004/H041/H041

53

SOURCE: RZh. Fizika, Abs. 4Zh248

AUTHOR: Nesteruk, V. F.; Porfir'yeva, N. N.; Finagin, B. A.

TITLE: Method for generating random pulses, using the discreteness of optical radiation in the master process

CITED SOURCE: Tr. Leningr. korablestroit. in-ta, vyp. 36, 1962, 107-109

TOPIC TAGS: random pulse generation, optical source, modulation

TRANSLATION: A method is described for generating random pulses, using the discrete nature of optical radiation. The master device is a low-power incandescent lamp rated about one watt. The light from the radiation source is incident on a gas-discharge photon-energy converter or a photomultiplier. The pulses obtained are amplified 20 -- 30 db and are fed to shaping stages. The main methods of utilizing such a generator are indicated: 1) generation of a generalized telegraph signal: 2) generation of a "random sequence" of pulses

Card 1/2

L 10043-63

ACCESSION NR: AR3000391

with fixed amplitude and duration; 3) generation of random sequence of video pulses with high-frequency carrier of any specified waveform; 4) modulation of continuous-wave generators. A. Grasyuk

DATE ACQ: 14May63 ENCL: 00

SUB CODE: PH

cs/ja
Card 2/2

L 15166-63

BDS

ACCESSION NR: AR3003347

S/0058/63/000/005/H043/H043

SOURCE: RZh. Fizika, Abs. 5Zh252

49

AUTHOR: Porfir'yeva, N. N.; Nesteruk, V. F.

TITLE: Procedure for investigation of spectral lines of alkali metal atoms for a specified signal to noise ratio at the output of an atom beam radiospectroscope detector

CITED SOURCE: Tr. Lenigr. korablestroit. in-ta, vy*p. 36, 1962, 143-148

TOPIC TAGS: atomic beam spectroscope, operating characteristic, optimal operation, signal to noise ratio

TRANSLATION: In order to determine the optimal operating conditions of an atomic-beam radiospectroscope, the principal relations which determine the signal/noise ratio during the observation of spectral lines of the alkali elements are calculated. An estimate is made of the spectroscope intrinsic noise due to the fluctuations in the number of molecules reaching the ionization chamber of the detector, under the condition that an active resistance is connected to the output of the detector. For real spectroscope parameters, the signal to noise ratio is 20 and when

Card 1/2

L 15166-63

ACCESSION NR: AR3003347

an ionic multiplier is connected to the output of the detector it reaches 400—500.
The effect of the resonator, detector, and the source of the spectroscopy on the
signal to noise ratio is considered. V. Zolin

DATE ACQ: 17Jun63

SUB CODE: PH

ENCL: 00

Card 2/2

NESTERUK, V.F.; PORFIR'YEVA, N.N.

Single pulse detection theory. Trudy LKI no.36:121-134 '62.

Methods of investigating the spectrum lines of alkali metal atoms with a given signal-to-noise ratio at the detector exit of an atom beam radio spectroscopy. Trudy LKI no.36:143-147 '62.

(MIRA 16:12)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.

NESTERUK, V.F.; PORFIR'YEVA, N.N.; FINAGIN, B.A.

Some remarks and additions to I.U.M. Bykov's article "Fluctuation noise generators for studying infra-low frequency control objects." Avtom.i telem. 24 no.1:116-117 Ja '63. (MIRA 16:1)
(Oscillators, Electric) (Automatic control)

L 11448-65 EEO-2/WT(d)/WT(1)/EEC-4/EED-2/ENA(h) Pn-4/Peb/Pj-4/Pl-4 RAEM(a)/
ASD(d)/ESD(c)/ESD(dp)/ESD(gs)
ACCESSION NR: AP4046676 S/0109/64/009/010/1769/1775

AUTHOR: Porfir'yeva, N. N.

TITLE: Geometric interpretation of performance of a linear system

SOURCE: Radiotekhnika i elektronika, v. 9, no. 10, 1964, 1769-1775

TOPIC TAGS: signal receiver, signal reception, noise immunity, optimal
signal receiver 8 4 25

ABSTRACT: A geometrical interpretation of the noise immunity of both optimal and nonoptimal linear receiving systems is offered. Instead of an average risk, a special "noise-immunity parameter" having the physical meaning of an effective signal-to-noise ratio at the output of the linear system is used. Geometrical figures in the n-dimensional Euclidean space are constructed which show the noise-immunity parameter for various cases. It is demonstrated that, with a correlated noise and optimal reception, such signal shapes exist and that

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L 11448-65

ACCESSION NR: AP4046676

the noise immunity of an optimal receiver may be either higher or lower than the noise immunity of the same receiver with a white noise. A 3-dimensional case with Markov-type noise is considered. The noise-immunity parameters for optimal and nonoptimal receiving systems are considered. Orig. art. has: 4 figures and 37 formulas.

ASSOCIATION: none

SUBMITTED: 08Jul63

ENCL: 00

SUB CODE: EC

NO REF SOV: 005

OTHER: 000

Card 2/2

L 63710-65 EEO-2/EWT(a)/FSS-2/EWT(1)/EEC-4/EED-2/EWA(h) JM

ACCESSION NR: AP5014055

UR/0108/65/020/005/0053/0059 29
621. 27B

AUTHOR: Nesteruk, V. F. (Active member); Porfir'yeva, N. N. (Active member)
55 55

TITLE: Contrast reception of a random-phase pulse signal with correlated noise
as a background [Reported at the 18th Scientific and Technical Conference, 25
NTORE, Leningrad, Apr 63]

SOURCE: Radiotekhnika, v. 20, no. 5, 1965, 53-59

TOPIC TAGS: contrast reception, signal reception, statistical reception
4 55

ABSTRACT: The statistical detection of a random-phase single-pulse signal with a normal-correlated-noise as a background is considered. The principle of operation of the (radar) receiving system is independent of the noise power; the decision about the presence or absence of a signal in a point 1 is made on the basis of measuring the screen luminosities or contrasts at points 1 and 2; the signals from these points are assumed to be statistically independent. The noise is

Card 1/2

L. 63710-65

ACCESSION NR: AP5014055

2

assumed to be additive correlated, having a normal distribution, and a specified correlated matrix. Relations (20-25) describing the probability of correct detection are developed, and the contrast method is compared with a "full-information" method (the latter is an optimal self-adaptive method in which the likelihood threshold proportional to the noise power is determined automatically). Orig. art. has: 2 figures and 25 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi
(Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 30Oct63

ENCL: 00

SUB CODE: DC, NG

55

NO REF SOV: 007

OTHER: 001

mlb
Card 2/2

L 04594-67 EWT(1)/T IJP(c)

SOURCE CODE: UR/0051/66/021/004/0487/0492

ACC NR: AF6033442

AUTHOR: Nesteruk, V. F.; Porfir'yeva, N. N.

ORG: none

TITLE: On the concept and definition of the contrast of the elements of the object and of the image

SOURCE: Optika i spektroskopiya, v. 21, no. 4, 1966, 487-492

TOPIC TAGS: statistic analysis, signal identification, image contrast

ABSTRACT: The article deals with the definition of a quantitative measure of the contrast between two elements of the object or of the image in the case when the brightness is subject to fluctuations. It is pointed out that although the standard definition of contrast is straightforward, it holds only for simple elements, and that in practice the measured elements have a complicated brightness distribution. Furthermore, there is a psychological tendency to allot to the background, against which the contrast is measured, a larger field than to the measured object. Brightness fluctuations introduce a stochastic element into the definition of contrast, which can no longer assume a unique value. Using the analogy between this problem and that of testing statistical hypotheses, a new definition of contrast is proposed, and the use of this definition for experimental verification of the presence of contrast is described. Although the problem and its solution are treated in terms of optics, the results hold equally well for other applications dealing with fluctuating signals, such

Card 1/2

UDC: 621.391.837.32: 535.01

Card 2/2

VYSHEPAN, Ye.D., PORFIR'YEVA, R.P.

Ammonia and glutamine content in the brain in bacterial intoxication.
Vop.med.khim. 4 no.5:365-368 S-0 '58 (MIRA 11:11)

1. Otdel eksperimental'noy khimioterapii Instituta farmakologii
i khimioterapii AMN SSSR, Moskva.

(BACTERIA,

toxins, eff. on brain ammonia & glutamine (Rus))

(BRAIN, metab

ammonia & glutamine, eff. of bact. toxins (Rus))

(AMMONIA, metab.

brain, eff. of bact toxins (Rus))

(GLUTAMINE, metab.

same (Rus))

PORFIR'YEVA, R.P.

Effect of experimental dysentery intoxication of urea formation in rats. Biul. eksp. biol. i med. 49 no.3:39-41 Mr '60. (MIRA 14:5)

1. Iz otdela eksperimental'noy khimioterapii (zav. - prof, A.M. Chernukh) Instituta farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR V.V.Zakusov) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V.V. Zakusovym.
(DYSENTERY) (LIVER) (UREA)

PORFIR'YEVA, R.P.

Effect of chlortetracycline on the synthesis of urea by the liver.
Antibiotiki 6 no.2:127-131 F '61. (MIRA 14:5)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M.Chernukh)
Instituta farmakologii i khimiogerapii AMN SSSR.
(UREA) (LIVER) (AUREOMYCIN)

PORFIR'YEVA, R.P.

Effect of antibiotics of the tetracycline group on the catalase activity of the liver. Biul. eksp. biol. i med. 52 no.11:54-57 (MIRA 15:3)
N '61.

1. Iz otdela eksperimental'noy khimioterapii (zav. - prof. A.M. Chermukh) Instituta farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR V.V. Zakusov) AMN SSSR, Moskva.
Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Zakusovym.
(LIVER) (TETRACYCLINE) (CATALASE)

PORFIR'YEVA, R.P.

Effect of antibiotics of the tetracycline group on the catalase activity of the liver. Biul. eksp. biol. i med. 52 no.11:54-57
N '61. (MIRA 15:3)

1. Iz otdola eksperimental'noy khimioterapii (zav. - prof. A.M. Chermukh) Instituta farmakologii i khimioterapii (dir. - deystvitel'nyy chlen AMN SSSR V.V. Zakusov) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V.V. Zakusovym.
(LIVER) (TETRACYCLINE) (CATALASE)

KIVMAN, G.Ya.; PORFIR'YEVA, R.P.

Effect of antibiotics from the tetracycline group on catalase activity in the blood. Antibiotiki 6 no.4:330-333 Ap '61.

(MIRA 14:5)

1. Otdel eksperimental'noy khimioterapii (sav. - prof. A.M.Chernukh)
Instituta farmakologii i khimioterapii AMN SSSR.
(CATALASE) (TETRACYCLINE)

KIVMAN, G.Ya.; PORFIR'YEVA, R.P.

Analyzing the effect of antibiotics of the tetracycline group on the catalase activity of blood and liver from the point of view of their distribution in the organism. Dokl.AN SSSR 138 no.4:977-978 Je '61.
(MIRA 14:5)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR. Predstavleno akademikom V.N. Chernigovskim.

(CATALASE)

(TETRACYCLINE)

PORFIR'YEVA, R.P.; KIVMAN, G.Ya.

Nature of the effect of antibiotics from the tetracycline group
on the blood and liver catalases in experimental pneumococcal
infections in rats. Antibiotiki 8 no.10:950-953 O '63. (MIRA 17:10)

1. Otdel khimioterapii (zav. - prof. A.M. Chernukh) Instituta
farmakologii i khimioterapii AN SSSR.

PORFIR'YEVA, R.P.

Further study of novobiocin binding in the organism and the applicability of previously established regularities for its determination in the organs.
Antibiotiki 9 no.12:1089-1091 D '64. (MIRA 18:7)

1. Laboratoriya farmakologii otdela khimioterapii (zav. - prof. A.M. Chernukh) Instituta farmakologii i khimioterapii AMN SSSR, Moskva.

PORFIR'YEVA, R.P.; KIVMAN, G.Ya.

Study on the interaction of novobiocin with proteins and some other components of the blood serum. Antibiotiki 10 no.6:522-526 Je '65.

(MIRA 18:7)

1. Laboratoriya farmakologii khimioterapevticheskikh preparatov otdela khimioterapii (zav. otdelom - prof. A.M.Chernukh) Instituta farmakologii i khimioterapii AMN SSSR, Moskva,

GAPONENKOV, T.K., doktor sel'skokhozyaystvennykh nauk, prof.;
POROYSKAYA, S.M., kand.sel'skokhozyaystvennykh nauk

Characteristics of the vegetative hybrid of durum wheat.
Agrobiologiya no. 3:392-395 My-Je '60. (MIRA 13:12)

1. Voronezhskiy sel'skokhozyaystvennyy institut.
(Wheat) (Grafting)

PORFIR'YEVA, ^{Ye.} A. Cand Biol Sci -- (diss) " ^{Effect} Reaction of solutions of
ethyl alcohol and permanganate potassium upon lymph formation and flow.
^{N.E.} Kirov, 1956. 19 pp 20 cm. (Min of Agr USSR. Kazan' State
Vet Inst im ^{N.E.} Bauman). 150 copies (KL, 9-57, 100)

-12-

PORFIR'YEVA, Ye.A.

Effect of potassium manganate solution of the vascular system.
Tr. Vsesoiuz. obsh. fiziol. no. 1:128-129 1952. (CML 24:1)

1. Delivered 21 April 1950, Kirov.

PORFIR'YEVA, Ye.A.

Characteristics of the reflex act and reception. Report No.4:
Reflex influences from muscle receptors of hind legs on the morpho-
logical composition of blood in rabbits. Trudy Kirov. otd. Vses.
fiziol. ob-va 1 no.1:15-20 '60. (MIRA 14:8)

1. Kafedra fiziologii s biologicheskoy khimiyey Kirovskogo sel'skokhoz-
yaystvennogo instituta.
(REFLEXES) (BLOOD--ANALYSIS AND CHEMISTRY)

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Conjugated systems. III. Order of addition of bromine to vinylalkylacetylenes. A. A. Petrov and Yu. I. Pogrebnya (Leningrad Aviation Instrument Inst.). *Zhur. Obshch. Khim.* 23, 1887-73 (1953); *Ch. C.A.* 44, 7751c; 48, 8181b. — In contrast to vinylacetylene, the homologous vinylalkylacetylenes add Br mainly at the ethylenic link. The structure of the products was proved by ozonization and oxidation to $\text{BrCH}_2\text{CHBrCO}_2\text{H}$ and the corresponding unsubstituted aliphatic acids. The course of addn. of Br is explained by displacement of the reactive center under the influence of the radical R in direction of the ethylenic bond; steric factors may be contributors. Addn. of 53 g. Br in 100 ml. CHCl_3 to 43 g. 1-penten-3-yne in CHCl_3 at -8° over 5 hrs., followed by removal of the solvent and rechromatation of allyl unchanged material gave 120 g. bromides, b_p 60-115°. The main fraction, 70 g., b_p 70.5-80.5°, the Raman spectrum lines (cm^{-1}) at 2317 and 2240 (triple bond), 1612 (caused by partial isomerization of the acetylenic dibromide into a diene under illumination), and 711 and 669 (C-Br links). Ozonolysis gave $\text{BrCH}_2\text{CHBrCO}_2\text{H}$, m. 64-6° and AcOH ; oxidation with KMnO_4 gave the same products. The product was thus identified as $\text{BrCH}_2\text{CHBrC}_2\text{Me}_5$, b_p 70.5-80.5°, d_4 1.8300, n_D^{20} 1.5588; a higher b. fraction, b_p 132-6°, d_4 2.3400, n_D^{20} 1.6160, was an impure tetrabromide. Similarly, 20 g. 1-

hexen-3-yne gave 52 g. bromides, from which was isolated the main fraction of 21.8 g. $\text{BrCH}_2\text{CHBrC}_3\text{Me}_5$, b_p 67-75°, d_4 1.6920, n_D^{20} 1.5470, along with a small amt. of crude tetrabromide, b_p 100-40°, d_4 2.2635, n_D^{20} 1.6920. 1-Hepten-3-yne (42 g.) gave 105 g. bromides, which yielded 60.1 g. $\text{BrCH}_2\text{CHBrC}_4\text{Me}_5$, b_p 100-2°, d_4 1.6908, n_D^{20} 1.5348. 1-Octen-3-yne similarly gave largely $\text{BrCH}_2\text{CHBrC}_5\text{Me}_5$, b_p 114-15°, d_4 1.5191, n_D^{20} 1.5300, while 7-methyl-1-octen-3-yne gave largely $\text{BrCH}_2\text{CHBrC}_6\text{Me}_5$, b_p 121-3°, d_4 1.4590, n_D^{20} 1.5238. The above dibromides (0.1 mole) in 50 ml. Et_2O were refluxed 4-6 hrs. with 50 ml. 48% HBr and 10 g. Cu_2Br_2 and, after diln. with H_2O and extn. with Et_2O , gave the following diene dibromides by isomerization (yields of 70-80% of pure substances were obtained): $\text{CH}_2=\text{CHCBr}=\text{CHMe}$, b_p 67-75°, d_4 1.8301, n_D^{20} 1.5708; $\text{CH}_2=\text{CHCBr}=\text{CHEt}$, b_p 69.5-70°, d_4 1.7092, n_D^{20} 1.5610; $\text{CH}_2=\text{CHCBr}=\text{CHPr}$, b_p 85.5-90°, d_4 1.6075, n_D^{20} 1.5515; $\text{CH}_2=\text{CHCBr}=\text{CHBu}$, b_p 101.5-2.5°, d_4 1.5319, n_D^{20} 1.5440; $\text{CH}_2=\text{CHCBr}=\text{CHMe}_2$, b_p 111-13°, d_4 1.4614, n_D^{20} 1.5350. In contrast to the acetylenic dibromides, which have irritating odors, these have pleasant odors; they darken and polymerize in storage, a process that is blocked by usual inhibitors. These dibromides practically do not react in

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the cold with alc. KOH. The acetylenic dibromides treated in the cold with alc. KOH lost 60% of the Br content and after steam distn. gave the following bromovinylacetylenes in 55-60% yields: $CH_2:CBBrC:CMc$, b_p 52-3°, d_4 1.4010, n_D^{20} 1.5255; $CH_2:CBBrC:CEt$, b_p 67-8°, d_4 1.3081, n_D^{20} 1.5156; $CH_2:CBBrC:CPPr$, b_p 83-4°, d_4 1.2443, n_D^{20} 1.5093; $CH_2:CBBr:CBu$, b_p 102-3°, d_4 1.2005, n_D^{20} 1.5051; $CH_2:CBBrC:CCH_2CH_2CH_2Me$, b_p 113-15°, d_4 1.1819, n_D^{20} 1.4998. These have irritating odors and polymerize rapidly to dark resins even in the presence of inhibitors; they do not react with ammoniacal Ag and show considerable exaltation of refraction (1.2-1.8). The tetrabromide of the hexenyne treated with 10% alc. KOH in the cold gave a wide range of products, b_p 118-21°, contained less Br than expected for a tribromide. The bromination of the original alkenynes always gave small amts. of low b. products, which were probably the cyclic dibromides, with their higher n values; these usually were formed in less than 10% yields.

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Conjugated systems. Part 153: Bromination of vinylallylacetylene
and its homologs. Zhur.ob.khim. 32 no.3:750-757 Mr '62.

(MIRA 15:3)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.
(Butenyne) (Bromination)

the order of addition of bromine to homologs of vinyl-
acetylene. A. A. Petrov and Yu. I. Porfir'eva. *Doklady
Akad. Nauk S.S.S.R.* 89, 873-6 (1953); *cf. C.A.* 44,
7751c. —To 43 g. $\text{MeC}\equiv\text{CCH}:\text{CH}_2$ in 200 ml. CHCl_3 at -8°
was added 63 g. Br in 100 ml. CHCl_3 ; distn. gave a no. of
fractions up to $145^\circ/10$ mm. of which the most abundant
were those b_p 70.5–80.5° (37.5 g.) and b_p 132–6° (13 g.).
The former, d_4 1.3300, n_D^{20} 1.5588, was identified as
 $\text{MeC}\equiv\text{CCH}(\text{Br})\text{CH}_2\text{Br}$ (I) on the basis of the following reac-
tions, and the existence in the Raman spectrum of the
frequency 2240 cm^{-1} which is that of a triple link. I
(7.2 g.) at room temp. with 2.7 g. KOH in 25 ml. EtOH
gave in 4 hrs. 50% bromide ion, while the soln. yielded 60%
bromopentenyne. Heating I with concd. $\text{HBr}\cdot\text{Cu}_2\text{Br}_2$ in
EtO 4 hrs. gave some 80% stable dibromide, $\text{MeCBr}:\text{CBr}:\text{CH}:\text{CH}_2$, b_p 57–7.5°, d_4 1.8305, n_D^{20} 1.5768, which in alc.
KOH lost but 5% of its Br, under the above conditions.
Ozonolysis of I and treatment with H_2O_2 gave AcOH and
 $\text{BrCH}_2\text{CHBrCO}_2\text{H}$, m. 64–6°. With KMnO_4 I gave the
same products. The high-boiling fraction (b_p 132–6°) was
impure tetrabromide, d_4 2.3496, n_D^{20} 1.6160. Similar
reaction of 40 g. $\text{EtC}\equiv\text{CCH}:\text{CH}_2$ with Br in CHCl_3 gave
52 g. mixed di- and polybromides which distd. up to $160^\circ/10$
mm. From these was isolated 24 g. material, b_p 86–91°
which after redistn. gave pure $\text{EtC}\equiv\text{CCHBrCH}_2\text{Br}$, b_p 87–
7.5°, d_4 1.6920, n_D^{20} 1.5470, whose chem. properties were
identical with those of the Me analog. Along with this
dibromide was obtained 10 g. crude tetrabromide, b_p 140–
50°, d_4 2.2035, n_D^{20} 1.6020. Similar bromination of 65 g.
 $\text{HC}\equiv\text{CCMe}:\text{CH}_2$ in CHCl_3 over 9 hrs. gave a range of frac-
tions of which the principal one (40 g.), b_p 48–53°, was
redistd., yielding pure $\text{HC}\equiv\text{CCMeBrCH}_2\text{Br}$ (II), b_p 50–
1.5°, d_4 1.7581, n_D^{20} 1.5320, Raman frequency 2118 cm^{-1} .
II with ammoniacal AgNO_3 gave a white ppt. of the Ag salt,
but this could not be reversed by addn. of HCl. With alc.
KOH II gave 60% 4-bromo-3-methyl-3-buten-1-yne, b_p 36–

8°, d_4 1.3690, n_D^{20} 1.5070. II heated with $\text{HBr}\cdot\text{Cu}_2\text{Br}_2$
gave $\text{CHBr}:\text{CBrCMe}:\text{CH}_2$, b_p 48.5–9.0°, d_4 1.7740, n_D^{20}
1.5430, which was quite stable to alc. KOH, losing but 4%
of its Br after 4 hrs. at room temp. In addn. to II, di-
bromide the original reaction mixt. gave 2.3 g. product, b_p
70–80°, probably $\text{CHBr}:\text{C}:\text{CMeCH}_2\text{Br}$, which, heated
with $\text{HBr}\cdot\text{Cu}_2\text{Br}_2$, gave the above dienic dibromide, b_p
48–9°. An unstated amt. of impure tetrabromide, b_p 125–
45°, was also obtained, but this decomp. during distn.
 $\text{MeC}\equiv\text{CCBr}:\text{CH}_2$, b_p 52–3°, d_4 1.4010, n_D^{20} 1.5255. $\text{EtC}\equiv\text{C}:\text{CBr}:\text{CH}_2$, b_p 1.3531, n_D^{20} 1.5166. G. M. Kosolapoff

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Order of addition of alkylhypohalogenides to vinylacetylene homologs.
Dokl.AN SSSR 90 no.4:561-564 Je '53. (MLRA 6:5)

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